§ 39. **Fertilization of Gerardia flava**, L.—I have been watching the fertilization of this plant. The flower opens outwards, or a little downwards, with the stamens and pistil crowded close to its upper lobes. Both the cells of the anther and the summit of the stigma face toward the earth, so that self fertilization is effectually prevented; besides, the anthers appear to mature a little before the stigma, which finally projects some way beyond the longer pair. I saw a honey-bee visiting these flowers in search of pollen, both thighs being already weighted with large pellets. It entered the flower back downward, clinging to the filaments for support, and, turning around as it worked away with its proboscis, dragged the pollen out of the cells, while at the same time the pellets upon its body brushed against the stigma. Every flower must be visited, as all the seed-vessels were maturing.

Aquebogue, August. H. W. YOUNG.

§ 40. **Fern-fungus.**—A frond of *Pteris aquilina*, L., sent us by Mr. Young, was marked by black spots between the veins. Mr. Peck, the fungologist, writes that it is *Dothidea Pteridis*, Fr. (Syst. Myc. Vol. II., p. 555. Handbook of British Fungi, p. 807), and that he has seen sterile specimens only, these, like the others, being without spores.

§ 41. **Suffolk Co.—Riverhead.**—The only plant new to our State that I can report this year is *Carex striata*, Mchx.—*Rumex Engelmanni*, Ledeb., proves to be well established at the mouth of Peconic River, covering a large area of sandy beach with *Calamagrostis arenaria* and *Andropogon scoparius*.

I have also to report finding *Lobelia Dortmanna*, L. in Sweezy's pond, one mile S. W. of Riverhead;—*Tilia Americana*, L., *var. pubescens*, *Gray*, in two different localities at Northville;—*Solidago odora*, *Ait.*, *var. inodora*, *Gray*, at Laurel Pond, Franklinville, none of the typical form being found with it. The pellucid dotted leaves marked it unmistakably, but the anisate odor was as entirely wanting as in *S. arguta* with which it grew. As before I find this form in more loamy soil than the common one, and suppose that it is frequently overlooked. Does not the character of the soil alone cause the development of this scentless form? At Luce's pond in Northville I find *Cicuta bulbifera*, L; *Myriophyllum tenellum*, Bigel.; *Lathyrus palustris*, L.; and abundance of *Woodwardia angustifolia*, Smith. In shaded pools *Lemna minor*, L., abounds; while in pools of brackish marshes with *Pluchea camphorata* (Does this ever grow in soil not saline?), at Wading River I find *Utricularia intermedia*, Hayne. At Long Pond this summer *U. inflata*, Walt., has been abundant; but, owing to the unusual height of the pond, the locality of *Rhynchospora nitens* is inundated and no plants are to be found.

I desire to exchange botanical specimens, especially of the Cyperaceæ and Gramineæ.

Aquebogue P. O. HENRI W. YOUNG

§ 42. **Suffolk Co.—Wading River.**—Mr. Miller reports the very interesting discovery of *Polypremum procumbens*, L.; also specimens of *Asplenium ebeneum*, Ait., with the fronds wider than usual and the segments very sharply serrate, which he proposes to ticket at Dr. Gray's suggestion as Var. *serratum*. Among other discoveries,